ACC.13
62nd Annual Scientific Session & Expo
TCT@ACC-i2

E389
JACC March 12, 2013
Volume 61, Issue 10

Arrhythmias

POTENTIAL PITFALL OF USING NATIONAL DATABASES TO MONITOR NON-EVIDENCE-BASED TREATMENT

Poster Contributions
Poster Sessions, Expo North
Monday, March 11, 2013, 9:45 a.m.-10:30 a.m.

Session Title: Arrhythmias: Devices IV - Ethical and Economic Issues Related to Arrhythmia Devices
Abstract Category: 8. Arrhythmias: Devices
Presentation Number: 1277-27

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Background: Recent publications based on data from the National Cardiovascular Data Registry (NCDR) indicate that the rate of non-evidence-based (NEB) implantable cardioverter-defibrillator (ICD) implantation for primary prevention is 22.5%. The purpose of this study was to analyze the accuracy of data submitted to the NCDR from a large integrated health care system.

Methods: A cross-sectional study was conducted to evaluate NEB ICD implantation from 1/1/2006 to 6/30/2009 and compare to NCDR reports. All cases entered in a community based cardiac device registry for initial ICD in the specified time frame were considered. Patients were excluded from analysis if they were <18 years old, had a diagnosis other than cardiomyopathy, experienced a prior myocardial infarction with an ejection fraction (EF) of ≤30, had prior Congestive Heart Failure with an EF of ≤35, or had inducible sustained ventricular tachycardia. Patients were classified as receiving a NEB ICD if they met any of the following: myocardial infarction within 40 days before implant; Coronary Artery Bypass Graft surgery within 3 months prior to implant; New York Heart Association class IV symptoms; newly diagnosed heart failure at the time of implant. Clinical content experts retrospectively reviewed electronic health records (EHR) to validate NEB ICD implantation for patients contained within the NCDR dataset. Descriptive statistics are provided.

Results: During the study period, we registered 2,846 patients with the NCDR. 701 patients met criteria for primary prevention and received a single or dual chamber ICD. From this group, 62 patients (8.8%) were classified as NEB. After internal chart review, our actual rate of NEB ICD implants was 3.1% (22 patients). Within our program, this rate is 64.8% lower than that suggested by NCDR data.

Conclusions: Retrospective validation of ICD implant data from an integrated medical care program suggests that NCDR data overstated the incidence of NEB ICD implantation by 64.8%. This suggests caution when interpreting the accuracy of data from the NCDR, indicates the need for an audit of data submitted to the registry, and identifies areas for improvement in form completion for data submitted to the NCDR.